

AMENDMENTS TO THE CLAIMS

1. **(Currently amended)** A method for the preparation of virus-inactivated thrombin comprising the steps of:

- (a) subjecting a solution comprising prothrombin and factor X to a virus inactivation procedure, by adding solvent and detergent to said solution, wherein the solvent is tri-n-butyl phosphate;
- (b) loading the product of step (a) onto an anion exchange medium;
- (c) washing the anion exchange medium to remove reagents used for the virus inactivation procedure in step (a); and
- (d) activating the prothrombin on the anion exchange medium to form thrombin by addition of metal ions, wherein a fraction of the thrombin has a specific activity of at least 2000 International Units per mg of protein.

2. **(Previously presented)** The method according to claim 1, wherein the solution comprising prothrombin and factor X is a prothrombin complex.

3. **(Previously presented)** A method for the preparation of virus-inactivated thrombin comprising the steps of:

- (a) subjecting a solution comprising factor X to a virus inactivation procedure, by adding solvent and detergent to said solution, wherein the solvent is tri-n butyl phosphate;
- (b) loading the product of step (a) onto an anion exchange medium;
- (c) washing the anion exchange medium to remove reagents used for the virus inactivation procedure in step (a);
- (d) activating the factor X on the anion exchange medium to form factor Xa by addition of metal ions; and
- (e) loading virus-inactivated prothrombin onto the anion exchange medium such that thrombin is generated, wherein a fraction of the thrombin has a specific activity of at least 2000 International Units per mg of protein.

4. **(Previously presented)** The method according to claim 1 or 3 wherein the metal ions are divalent metal ions.

5. **(Previously presented)** The method according to claim 4 wherein the divalent metal ions are magnesium and/or calcium ions.

6. **(Previously presented)** The method according to claim 1, further comprising the step of

(e) selectively eluting the thrombin from the anion exchange medium.

7. **(Previously presented)** The method according to claim 6, further comprising the steps of

(f) passing the product of step (e) through a filter which retains pathogens;

(g) adding a divalent metal ion and a carbohydrate to the product of step (f), and

(h) freeze-drying and heat-treating the product of step (g) to inactivate viruses.

8-13. **(Canceled)**

14. **(Previously presented)** The method according to claim 3, further comprising the step of

(f) selectively eluting the thrombin from the anion exchange medium.

15. **(Previously presented)** The method according to claim 14, further comprising the steps of

(g) passing the product of step (f) through a filter which retains pathogens;

(h) adding a divalent metal ion and a carbohydrate to the product of step (g), and

(i) freeze-drying and heat-treating the product of step (h) to inactivate viruses.

16. **(Currently amended)** A method for the preparation of virus-inactivated thrombin comprising the steps of:

(a) loading a solution comprising prothrombin and factor X onto an anion exchange medium; and

(b) subjecting the prothrombin and factor X to a virus inactivation procedure by adding solvent and detergent to said prothrombin and factor X on the anion exchange medium, wherein the solvent is tri-n-butyl phosphate;

(c) washing the anion exchange medium to remove reagents used for the virus inactivation procedure in step (b); and

(d) activating the prothrombin on the anion exchange medium to form thrombin by addition of metal ions, wherein a fraction of the thrombin has a specific activity of at least 2000 International Units per mg of protein.

17. (Previously presented) The method according to claim 16 wherein the metal ions are divalent metal ions.

18. (Previously presented) The method according to claim 17 wherein the divalent metal ions are magnesium and/or calcium ions.

19. (Previously presented) The method according to claim 16, further comprising the step of

(e) selectively eluting the thrombin from the anion exchange medium.

20. (Previously presented) The method according to claim 19, further comprising the steps of

(f) passing the product of step (e) through a filter which retains pathogens;

(g) adding a divalent metal ion and a carbohydrate to the product of step (f), and

(h) freeze-drying and heat-treating the product of step (g) to inactivate viruses.

21. (Previously presented) A method for the preparation of virus-inactivated thrombin comprising the steps of:

(a) loading a solution comprising prothrombin and factor X onto an anion exchange medium; and

(b) subjecting the prothrombin and factor X to a virus inactivation procedure by adding solvent and detergent to said prothrombin and factor X on the anion exchange medium, wherein the solvent is tri-n-butyl phosphate;

(c) washing the anion exchange medium to remove reagents used for the virus inactivation procedure in step (b);

(d) activating the factor X on the anion exchange medium to form factor Xa by addition of metal ions; and

(e) loading virus-inactivated prothrombin onto the anion exchange medium such that thrombin is generated, wherein a fraction of the thrombin has a specific activity of at least 2000 International Units per mg of protein.

22. (Previously presented) The method according to claim 21 wherein the metal ions are divalent metal ions.

23. (Previously presented) The method according to claim 22 wherein the divalent metal ions are magnesium and/or calcium ions.

24. (**Previously presented**) The method according to claim 21, further comprising the step of

(e) selectively eluting the thrombin from the anion exchange medium.

25. (**Previously presented**) The method according to claim 24, further comprising the steps of

(f) passing the product of step (e) through a filter which retains pathogens;

(g) adding a divalent metal ion and a carbohydrate to the product of step (f), and

(h) freeze-drying and heat-treating the product of step (g) to inactivate viruses.

26. (**Previously presented**) The method according to Claim 1, wherein step (d) is performed without addition of phospholipids.

27. (**Previously presented**) The method according to Claim 3, wherein step (d) is performed without addition of phospholipids.

28. (**Previously presented**) The method according to Claim 16, wherein step (d) is performed without addition of phospholipids.

29. (**Previously presented**) The method according to Claim 21, wherein step (d) is performed without addition of phospholipids.